

Remarks

The Examiner in the second non-final Office Action has (1) allowed claims 24-32, (2) rejected claims 1-14, 19 and 21, and (3) objected to claims 15-18, 20, 22-23 as being dependent upon a rejected base claim, but as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections 35 U.S.C. § 103

Claims 1, 11-14, 19, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fushiya et al.* (U.S. Patent No. 5,018,314) in view of *McCracken* (U.S. Patent No. 6,168,507). In the previous amendment, Applicants argued that *Fushiya et al.* did not disclose a motor which is a high-speed permanent magnet DC motor in an orbital sander. *McCracken* has been newly cited as disclosing such a motor albeit in an orbital polisher. The Examiner argues that it would be obvious to one of ordinary skill in the art to modify the orbital sander of *Fushiya et al.* with the DC motor as disclosed by *McCracken* in order to prevent accidental disconnection of the electrical cord which can interrupt electrical power to the sander.

Applicants respectfully argues that it would not be obvious to substitute the DC motor of *McCracken* for the AC motor of *Fushiya et al.* in this application.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP §706.02(j), p. 700-45 (Rev. 1, 7. 2003).

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In this case, it is respectfully suggested that there is no suggestion or motivation to combine the referenced teachings nor is there a reasonable expectation of success.

The motivation suggested by the Examiner is to address the possible problem of accidental disconnection of the electrical cord which can interrupt electrical power to the sander. *McCracken* gives no explanation as to why DC power motors should be used to avoid this problem. While *McCracken* does express a concern about accidental disconnection of the electrical cord but this is addressed to a type of cord head used rather than the type of motor. *See*, column 2, ll. 17-35, column 3, ll. 14-25. Further, there is no motivation to combine this teaching regarding electrically powered polishers to oscillating sander art since as stated in the application "the problem of accidental separation . . . [is] a particular problem with orbital polishers and waxers as typically they are used with car surfaces which can require an operator to move around the automobile to buff or wax the entire extent of its exterior surfaces." (Col. 2, ll. 22-27.) Thus, applicants deny that there is any motivation to add a DC motor to orbital sanders because no motivation exists to do so. Further, it should be noted that accidental separation with a cord would stop use of either an AC or a DC motor. Thus, the suggested combination would not provide the advantage suggested by the Examiner as the motivation for the combination.

To further highlight the difference, the claim has been amended to be directed towards orbital palm sanders where the housing is "sized to allow an operator to grasp an operate the sander with a single hand about the central axis." This language is intended to include the common methods of operating orbital palm sanders by either placing the palm of the hand on top of the housing so to surround the central axis or grasping the lower portion of the housing surrounding the central axis.

Given the substantially different usages between an orbital palm sander and the electrically powered polisher of *McCracken*, one would not be expected to combine the teachings of the two arts. Thus, it is suggested that reliance on *McCracken* should be withdrawn in claim 1 and its dependent claims allowed.

With regard to dependent claims 2-10, the Examiner again urges that the claims are obvious "since it has been held that the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Alter*, 105 USPQ 233." Applicants transverse this rejection. While it is true in some cases that discovery of claim ranges involves only routine skill in the art, such law is not applicable in this case. There is no suggestion in the relevant prior art to substitute a DC motor for the traditional AC motor shown in the random orbit palm sander art. Further, if it could be said that *McCracken* applies such a motivation, the purpose of *McCracken* in the combination is to prevent the disconnection of the power supply and would not provide motivation to obtain the particular ranges claimed, which give unexpected results unrelated to the issue of disconnection of power.

Therefore, the rejection of claims 1-14, 19, and 21 should be withdrawn and the claims allowed to issue.

Allowable Subject Matter

Applicants recognize the Examiner's statement that claims 15-18, 20, 22-23 were objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In view of these comments, Applicants have reviewed claims 22 and 23 with the intent of making them no longer dependent upon rejected base claims. In doing so, Applicants recognize that the basis for the rejection of the dependent claims was the Examiner's conclusion that there was no patently distinct difference between an orbital sander using an AC motor and a DC motor. Thus, the allowable subject matter in these claims should not be dependent upon the type of motor. Therefore, the requirement for a DC motor in base claim 1 has been removed, as has the requirement for a power supply having an input adaptable to

be coupled to a source of AC power and DC output electrically connected to the motor in claim 19 which acts as a base claim for claim 20.

Taking into account those changes, new independent claims 33 and 36 have been added based on former claims 20 and 22. Claim 23 has been amended to correct its dependency to claim 33. The requirement for a DC motor has been added back in as dependant claims to each of these new independent claims as claims 34 and 37 respectively. The requirement for a power supply having an input adaptable to be coupled to a source of AC power and DC output electrically connected to the motor has been set forth in claim 35 as a dependant claim to claim 34. In view of these amendments, it is respectfully requested that claims 23 and 33-37 be allowed.

Claims 15-18 and 20 should be allowed in view of the above arguments regarding the allowability of their base claim.

Conclusion

In view of the above comments and amendments, it is requested that the Examiner's rejections and objections be withdrawn. Accordingly, it is respectfully submitted that the case be reconsidered and allowed. If the Examiner has any questions or concerns regarding the application, he is invited to telephone the undersigned so that the matter can be properly handled and the case passed onto issue.

Respectfully submitted,

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